

I claim:

- 1 1. A surgical knife, comprising:
 - 2 a) a handle;
 - 3 b) a blade having opposing cutting edges and a longitudinal axis, the blade
4 being attached to the handle; and
 - 5 c) a distal tip on the blade, the distal tip having a distal point,
6 wherein the distal tip has a shape generally described by the equation

$$w = ad^n$$

8 where

9 w is the distance from the blade's longitudinal axis to the blade's cutting edges

10 a is a constant of proportionality not greater than 0.5

11 n is an exponent approximately between 0.9 and 1.4

12 d is the distance along the blade's longitudinal axis from the extreme distal point of the
13 blade tip.

1 2. The surgical knife of claim 1 wherein the distal tip has a thickness of
2 approximately between 0.003 inches and 0.007 inches.

1 3. The surgical knife of claim 1 wherein an angle between the cutting edges is
2 between approximately 12° and 20°.

1 4. The surgical knife of claim 1 wherein the distal point is slightly rounded,
2 with a radius of less than approximately 40 microns.

1 5. The surgical knife of claim 4 wherein the radius is between approximately
2 10 microns and 40 microns.

1 6. The surgical knife of claim 1 wherein the blade contains a lubricious or
2 friction reducing coating.

7. A surgical knife, comprising:

- a) a handle;
- b) a blade having opposing cutting edges and a longitudinal axis, the blade being attached to the handle and containing a lubricious or friction reducing coating; and
- c) a distal tip on the blade, the distal tip having a slightly rounded distal point, wherein the distal tip has a shape generally described by the equation

$$w = ad^n$$

where

w is the distance from the blade's longitudinal axis to the blade's cutting edges

a is a constant of proportionality not greater than 0.5

n is an exponent approximately between 0.9 and 1.4

d is the distance along the blade's longitudinal axis from the extreme distal point of the blade tip.

8. The surgical knife of claim 7 wherein the distal tip has a thickness of approximately between 0.003 inches and 0.007 inches.

9. The surgical knife of claim 7 wherein an angle between the cutting edges is between approximately 12° and 20° .

10. The surgical knife of claim 7 wherein the distal point has a radius of less than approximately 40 microns.

11. The surgical knife of claim 10 wherein the radius is between approximately 10 microns and 40 microns.